

CLAIMS

1. A method for treating papermaking waste water, which comprises having a silica-aluminum based inorganic polymer
5 flocculant having an Si/Al molar ratio of 0.2 to 1.5 contained in papermaking waste water having a pH or adjusted pH of 5 to 14 such that the concentration of the inorganic polymer flocculant becomes 1 to 250 (mg-Al/L) in terms of aluminum to control the pH of the papermaking waste water to 5 to 8
10 and then adding an organic polymer flocculant.

2. The method of claim 1, wherein the pH of the papermaking waste water is controlled to 5 to 8 by merely adding the silica-aluminum based inorganic polymer flocculant.

15

3. The method of claim 1 or 2, wherein the silica-aluminum based inorganic polymer flocculant has a pH of 1.5 to 2.5 and an SiO₂ concentration of 5 to 25 g/L.

20 4. A method of using silica sol which uses silica sol produced by reacting a sodium silicate solution with a halogen-free mineral acid as a retention aid and uses a silica-aluminum based inorganic polymer flocculant produced by adding aluminum sulfate to the silica sol and having an
25 Si/Al molar ratio of 0.2 to 1.5 as a flocculant for papermaking waste water.

5. The method of claim 4, wherein the silica-aluminum based inorganic polymer flocculant has a pH of 1.5 to 2.5 and
30 an SiO₂ concentration of 5 to 25 g/L.